

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
13 October 2005 (13.10.2005)

PCT

(10) International Publication Number
WO 2005/095291 A1

(51) International Patent Classification⁷: C02F 11/12,
11/14, 1/56, B01D 21/00

(74) Common Representative: **CIBA SPECIALTY CHEMICALS WATER TREATMENTS LIMITED**; Patent Department, Cleckheaton Road, Low Moor, Bradford, West Yorkshire BD12 0JZ (GB).

(21) International Application Number:
PCT/EP2005/002080

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 28 February 2005 (28.02.2005)

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0405493.8 12 March 2004 (12.03.2004) GB

(71) Applicant (for all designated States except US): **CIBA SPECIALTY CHEMICALS WATER TREATMENTS LIMITED** [GB/GB]; Cleckheaton Road, Low Moor, Bradford, West Yorkshire BD12 0JZ (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **WHITTAKER, Tony** [GB/GB]; 11 Petrel Close, Clayton Heights, Bradford, West Yorkshire BD6 3YB (GB). **NORMAN, Peter** [GB/GB]; 35 Lumb Lane, Roberttown, Liversedge, West Yorkshire, WF15 7NQ (GB). **SMITH, Darryl** [GB/GB]; 25 Becketts Close, Heptonstall, Hebden Bridge, West Yorkshire HX7 7LJ (GB).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/095291 A1

(54) Title: DEWATERING PROCESS

(57) Abstract: A process of dewatering an aqueous suspension comprising dosing the suspension with a flocculating amount of a first flocculant to form a thickened suspension and mixing into the thickened suspension a dewatering amount of a second flocculant and subjecting the thickened suspension to mechanical dewatering to form a cake, characterised in that the second flocculant comprises a water-soluble or water swellable polymer that is mixed into the suspension in the form of (i) substantially dry polymer particles or (ii) an aqueous composition comprising dissolved or hydrated polymer having a polymer concentration of at least 2% by weight and having a intrinsic viscosity of at least 3 dl/g.